

COCCIDAE FROM THE SEYCHELLES.

By E. E. GREEN and F. LAING.

***Pseudaonidia iota*, sp. n.**

Adult female pyriform, broadest across the meso- and metathorax; cephalo-thoracic area rounded in front, slightly contracted behind, where there is a well-defined transverse groove; abdomen tapering to the posterior extremity; frons and margins of thorax and abdomen with a few spiniform setae. Antennae rudimentary, each bearing a single long straight seta. Anterior spiracles with a small group of parastigmatic pores (fig. 1, A). Pygidium with a well defined, strongly chitinised, pyriform, reticulated area, the lacunae oval or round, and disposed regularly; the part posterior to the anus, very heavily chitinised, obscuring the lacunae. Circumgenital glands present, consisting of a continuous arch representing the united median and

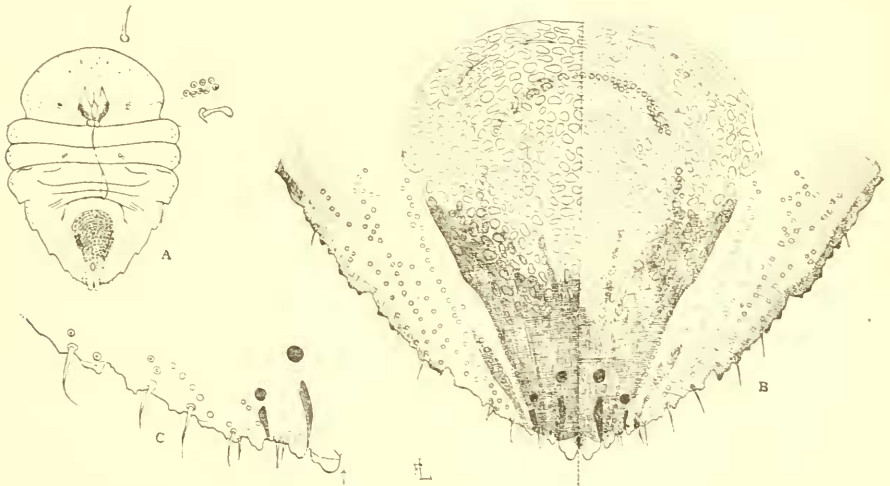


Fig. 1. *Pseudaonidia iota*, sp. n.: A, adult, 30; B, pygidium, 150; C, margin of pygidium, 250.

anterior lateral groups, with the posterior laterals separated by a short space; the anterior laterals show signs of being in two rows. Dorsal pores numerous, comparatively small, circular, arranged in longitudinal series on each side of the pygidium, and extending on to the margins of the abdomen (fig. 1, B). Pygidial margin with three pairs of lobes and numerous angular projections laterad, each lobe notched on the outer side; two pairs of conspicuous claviform paraphyses, each with a large separate circular knob like the dot of an *i* (fig. 1, C). Length, 1 mm.; greatest breadth about 0.75 mm.

Described from a single example.

On upper surface of leaf of *Eugenia caryophyllata*, Seychelles (*P. R. Dupont*).

The paraphyses of this species resemble those to be found in *P. lacinia*, Brain (*Bull. Ent. Res.*, ix, 3, p. 207, March 1919), but the two species may be readily separated by the absence of circumgenital glands in the latter.

***Pseudaonidia aldabraca*, sp. n.**

Puparium of female more or less circular, brownish, partly overlaid with greyish-white secretion. Diameter approximately 2 mm.; exuviae subcentral.

Adult female broadly ovate, broadly rounded in front, bluntly pointed behind, deeply incised on each side of the body immediately behind the cephalo-thoracic area; broadest across the metathoracic area, *i.e.*, shortly behind the lateral incision. The whole insect rigid, rather densely chitinous. Rudimentary antennae obsolete or inconspicuous. Anterior spiracles with a small group of parastigmatic pores; posterior spiracles rather inconspicuous, with no pores. Segmental divisions of abdomen marked by strong transverse folds which do not extend to the lateral margins. A few longish spiniform setae at intervals along the margins of abdomen (fig. 2, A). Pygidium not sharply defined; its centre occupied by a large reticulated area, the lacunae very irregular in size, form and disposition; no circumgenital glands; dorsal pores small, but numerous (fig. 2, B). Margin of pygidium with three pairs of lobes; the median pair larger and more prominent, bluntly conical; second and third pairs rather shallow, the apex of each nearer the inner side, more or less conspicuously notched on the free edge. There is a suggestion of a fourth lobe in the form of a sub-angular marginal prominence. Squames minute and inconspicuous; a pair between the median lobes; a second pair in the intervals between the median and second lobes; and one (possibly two) between the second and third lobes. There

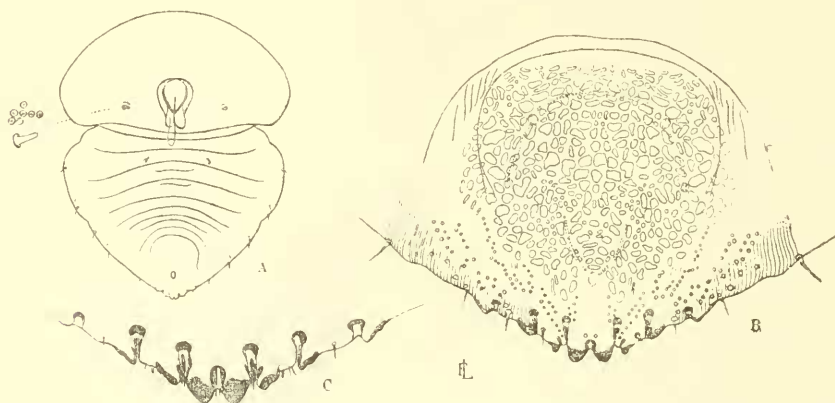


Fig. 2. *Pseudaonidia aldabraca*, sp. n.: A, adult, $\times 30$; B, pygidium, $\times 150$; C, margin of pygidium, $\times 225$.

are three conspicuous crescentic incassations, within the margin on each side, associated with short but rather stout paraphyses which extend inwards from the interval between the median and second lobes and from the inner side of the third and of the rudimentary fourth lobes. There is also a pair of short and more or less confluent paraphyses between the median lobes (fig. 2, C). Length, 1.25 mm.; greatest breadth, 1 mm.

Described from a single example.

On bark of "Bois d'Amande," Aldabra Island, Seychelles (*P. R. Dupont*).

This species is near to *P. tesserratus*, d'Emm., but differs principally in its smaller size, and in the absence of the strongly cristate lateral margins of the pygidium.

***Aonidia obtusa*, sp. n.**

Female puparium consisting almost entirely of the enlarged nymphal pellicle, transversely oval, flat, or very slightly convex, a narrow marginal area ornamented with sutures running irregularly from without inwards and intertwining; colour varying from pale to dark brown, often thinly coated with white powdery secretion over a wide marginal area, leaving only the centre bare (fig. 3, A). Pygidium recessed,

the extremity scarcely projecting, deeply incised on each side near the base; margin with a pair of narrow median lobes between which are two narrow squames, laterad are two squames, a lobe, three squames, and then three lobes; squames slightly fimbriate. The basal areas (beyond the incisions) each with three prominent angular projections. There are two pairs of broad (but obscure) semilunar pores, occupying the intervals between the median, second and third lobes, and communicating with conspicuous tubular ducts (fig. 3, B). Breadth, 1-1.16 mm.; length, 0.75 mm.

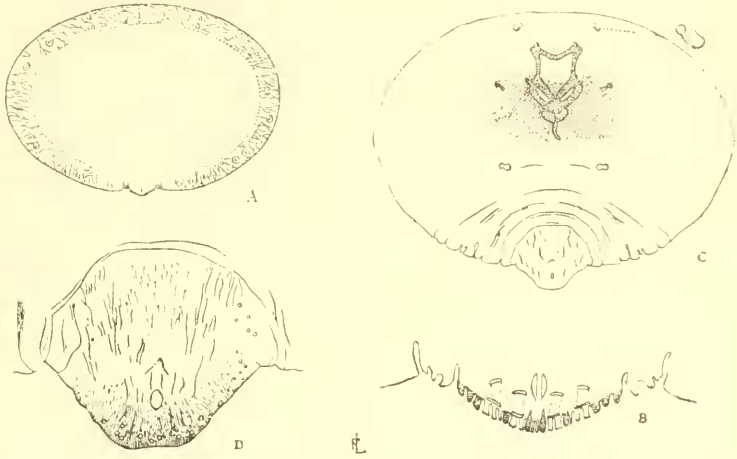


Fig. 3. *Aonidia obtusa*, sp. n.: A, nymphal pellicle, $\times 33$; B, pygidial margin of same, $\times 225$; C, adult, $\times 50$; D, pygidium of adult, $\times 150$.

Adult female broadly ovate, 0.8 to 0.95 mm. broad, by 0.75 mm. long; abdominal segments compressed but visible. Antennae rudimentary, composed of a short curved spine situated on a tubercle. Mouth-parts strongly developed; area surrounding mouth and anterior spiracles more densely chitinised than the rest of the body (fig. 3, C). Pygidium obtuse, without a vestige of lobes or other processes; and with several conspicuous sub-marginal pores (fig. 3, D).

On *Versaffellia splendida*, Seychelles (*P. R. Dupont*).

Four names may be added to the list of COCCIDAE already recorded from the Seychelles.

1. *Ceroplastes rubens*, Mask.

On fern (*Acrostichum* sp.). Widely distributed in the Australasian region.

2. *Chionaspis subcorticalis*, Green.

On tomatoes, Astove Island, and on *Sida* sp., Assumption Island. Hitherto recorded from Ceylon only.

3. *Pinnaspis buxi*, Bouché.

On *Pandanus seychellarum*, Felicité Island; also on *Areca catechu*. An almost cosmopolitan species.

4. *Diaspis (Aulacaspis) flacourtia*, Rutherf.

On *Flacourtia*. Previously known from Ceylon only.

As Rutherford published his description (Bull. Ent. Res., v, 3, Dec. 1914, p. 259) without any figures, we take this opportunity of supplying the omission (see fig. 4, A, B).

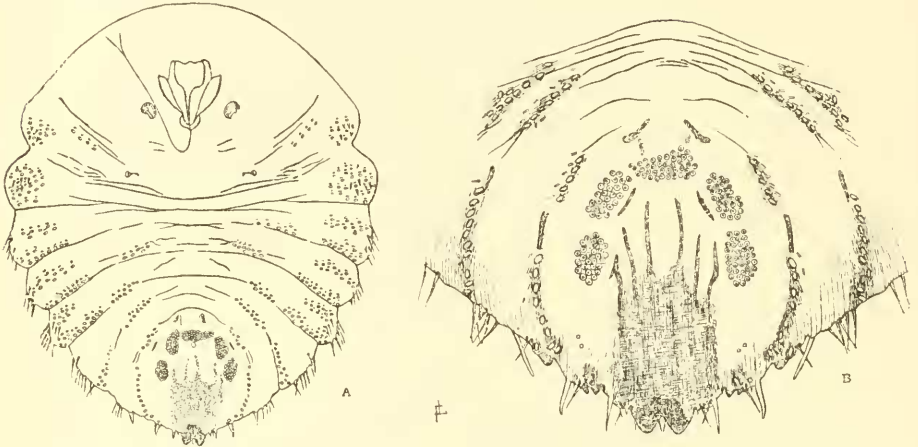


Fig. 4. *Diaspis flacourtia*, Rutherf. : A, adult, $\times 50$; B, pygidium, $\times 150$.

The species differs from *pentagona*—which it closely resembles—in the relatively larger and more prominent median lobes, and in the obsolescent or very small lateral lobes of the pygidium. The dentiform first lateral lobe, which is a prominent feature in typical *pentagona*, is altogether lacking in *flacourtia*. The pores on the lateral margins of the body are far more numerous and conspicuous in *flacourtia*.

Rutherford makes no mention of the pathological effect upon the host-plant that is noticeable in Ceylon, where the insect causes a stimulation of growth in the sub-lying woody tissue, causing irregular and conspicuous swellings on the infested areas of the branches of *Flacourtia*. This effect is noticeable only upon the older and mature branches. When the smaller and younger branches are attacked, there is no such tendency to an abnormal growth.